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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/620,107

07/15/2003

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EXAMINER

DANG, HUNG Q

ART UNIT

PAPER NUMBER

2612

MAIL DATE

DELIVERY MODE

02/01/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/620,107

Applicant(s)

YAMASHITA ET AL.

Examiner

Hung Q. Dang

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,6-15 and 17-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,6-15,17 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. This communication is in response to application's amendment dated 10/12/2007. The amendment of claims 1-4, 6-15 and 17-18 have been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1 and 17 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. **Claim 13** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

To be specific, the claimed limitation "...a distinction of using operator of the specified connection assembly **can be executed** ..." is indefinite. It is not clearly understood what "...can be executed...." means or what constitutes "a distinction".

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4, 7, 8, 10-15 and 17-18 are rejected under 35 U.S.C. 103(a) as being anticipated by applicant's prior art admission based on JP 2002-35009 in view of Malackowski et al. U.S. Pub 2003/0093103.

Regarding claim 17, applicant's prior arts admission teaches a connection assembly (Figure 14, unit 101) detachably connected to a main body of a dental apparatus for use in dental diagnosis and treatment, wherein said connection assembly has a communication means for sending to said main body ID information necessary for driving said connection assembly (Figure 14; page 2 of the specification states that "... upon connecting the instrument 101 to the main body of the apparatus, **identification signals** are actively output for individually identifying the instrument 101 to the main body of the apparatus from the identification signal output means 106 via the connection terminal 106e. Then the main body of the apparatus specifies which instrument is connected to supply driving power, water, air and so on corresponding to the connected instrument, thereby setting a display or a control program of the apparatus suitable for the connected instrument. Therefore, different kinds of diagnosis can be executed

comfortably by sequentially attaching, detaching and connecting plural kinds of instruments to the same connection part").

However, applicant's prior art admission does not teach sending from the connection assembly to the main body functional information for driving said connection assembly.

Malackowski et al., in the same field of endeavor, teaches a connection assembly detachably connected to a main body of a surgical apparatus, wherein said connection assembly has a communication means for sending to said main body functional information comprising a parameter for driving said connection assembly (abstract; see paragraphs [0011] and [0045]; the functional information in this case is the information that identifies the type of handpiece; information that describes the operating characteristics of the handpiece motor; and other types of information that can be used to regulate the operation of the handpiece).

Since, such surgical connection assembly disclosed by Malackowski et al. can possibly be used in a dental apparatus, therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide functional information, such as the type of functional information disclosed by Malackowski et al., from the connection assembly to the main body disclosed by applicant's prior art admission, so that a specific operation of the connection assembly can be regulated by the main body from the received functional information without requiring the storage of information at the main body.

Claims 1 and 18 are rejected for similar reasons as the rejection of claim 17, since these claims are broader in scope than claim 17.

Regarding claim 2, the communication means of the connection assembly disclosed by applicant's prior arts admission is also a parallel output type of communication means (Figure 14, units 106s indicates parallel output).

Regarding claim 3, the communication means of the connection assembly disclosed by applicant's prior arts admission also includes a storage means for memorizing and storing said information (identification information; page 2 lines 13-15 and lines 26-33 of the specification).

Regarding claim 4, the communication means of the connection assembly disclosed by applicant's prior arts admission is also a communication integration element (Figure 14, unit 106 and page 2 of the specification).

Regarding claim 7, the connection assembly disclosed by applicant's prior arts admission also includes a connection assembly part for detachably connecting said connection assembly to said main body, wherein said connection part constitutes a multi-junction connection (Figure 14 and page 2 lines 5-9).

Regarding claim 8, the communication means of the connection assembly disclosed by applicant's prior arts admission is also a passive element electrically connected to the main body (page 2 lines 30-34 of the specification indicates that the main body of the apparatus specifies with instrument is connected to supply **driving power**to the connected instrument, which implies that the communication means is a passive element).

Claims 10-12 and 14 are rejected similarly as claim 17. The connection assembly disclosed by applicant's prior arts admission also includes communication means for sending and receiving information on said connection assembly to and from said main body of said dental apparatus, and wherein function to be achieved by said connection assembly is realized cooperating with said connection assembly by the information obtained from said communication means upon connecting said connection assembly to said main body of said dental apparatus (page 2 lines 30-37 of the specification "...to supply driving power**setting a display**.....or a **control program** of the apparatus suitable for the connected instrument....").

Regarding claim 15, the wiring to a connection part for detachably connecting said connection assembly to the main body disclosed by applicant's prior arts admission is also a multi-branch structure (Figure 14b, units 106Es constitute a multi-branch structure). The multi-branch structure (106Es) on the connection assembly disclosed by the applicant's prior art admission implies that there is a corresponding multi-branch structure on the main body so that the multi-branch structure of the connection assembly may be connected to said body.

Regarding claim 9, applicant's prior arts admission on page 2 of specification teaches the connection assembly as claimed in claim 1, except wherein connection assembly includes a chargeable battery.

Applicant's prior arts admission also discloses conventional dental apparatuses that are equipped with rechargeable battery as a self-driving source to be controllable and chargeable (page 1 lines 1-25 of the specification).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to provide a rechargeable battery to the connection assembly as disclosed by applicant's prior arts admission so that said connection assembly can be a self-driving source and chargeable.

Regarding claim 6, applicant's prior arts admission discloses the connection assembly as set forth in claim 1 for having an identification signal output means, without specifying a nonvolatile storage means and wherein voltage level signals of which have height value is varied at a predetermined repetition cycle or frequency identification signals of which frequency is varied is used as an identification signal from said identification signal output means. However, the Examiner gives Official notice that using varied voltage level signals or varied frequency signals as identification signals have been conventionally utilized in many communication applications. Therefore, by conventionality, it would have been obvious to one skilled in the art to use either a varied voltage level signal or a varied frequency signal as the identification signal of the connection assembly.

Regarding claim 13, Malackowski et al. also teaches storing a usage history of the specified connection assembly based on the functional information obtained from the connection assembly (paragraph [0169]). However, Malackowski et al. does not specifically disclose a distinction of the using operator of the specified connection assembly.

Since, Malackowki et al. teaches identifying the equipment that was used during the surgical procedure so that the patient can be appropriately charged for the

equipment that was used; one of ordinary skill in the art would be motivated to provide the usage history of the operator (doctor's name) who operated said equipment so that a clear usage history concerns a specific connection assembly, the patient's name and the operator's name can be clearly recorded for billing purpose.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Q. Dang whose telephone number is (571) 272-3069. The examiner can normally be reached on 9:30AM-6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Zimmerman can be reached on (571) 272-3059. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Hung Q Dang
1/27/2008
H.D.

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ALBERT K. WONG
PRIMARY EXAMINER